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CERTIFICATE

This certificate is issued in support of an application for Patent registration in a country outside New Zealand pursuant to the Patents Act 1953 and the Regulations thereunder.

I hereby certify that annexed is a true copy of the Provisional Specification as filed on 24 December 2002 with an application for Letters Patent number 523378 made by
YELLOWTUNA HOLDINGS LIMITED.

PRIORITY DOCUMENT

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Dated 7 January 2004.



Neville Harris
Commissioner of Patents, Trade Marks and Designs



Patents Form # 4

NEW ZEALAND

Patents Act 1953

PROVISIONAL SPECIFICATION

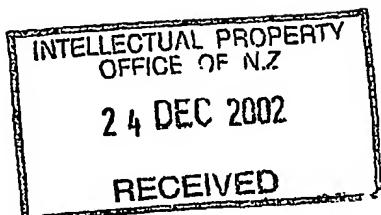
Title: Modem

We, **YELLOWTUNA HOLDINGS LIMITED**,

Nationality: *A New Zealand company*

Address: *Unit 2,, 36 William Pickering Drive, Albany, Auckland, New Zealand,*
do hereby declare this invention to be described in the following statement :

- 1 -



Mediated Internet Connection

This invention relates to connecting to the internet via a data connection which connection is remotely configurable as to access permissions.

- 5 Connection of a users business to the internet for access by internal parties may be by ADSL (Asymmetric Digital Subscriber Line). Such a connection is typically via an ADSL modem and may include a router to route incoming data packets and a firewall to stop attempts to intrude into the users data. Typically the configuration of the router and firewall is done on site and will need to be changed on site to cater for variations over time in the users business.
- 10 This involves a smaller user in expense as it requires specialised IT personnel to come on site to carry out the configuration.

Connections for higher volume users also typically include routers and firewalls connected via a plurality of modems for internet access. Currently these are mainly configured on site by the users skilled personnel.

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It is therefore an object of the present invention to provide an internet connection which does not require on site attendance for configuration of router or firewall or which will at least provide the public with a useful choice.

- 20 Accordingly, the invention may broadly be said to consist in a router and/or firewall which is initially incapable of doing other than providing a connection to a remote configuration authority, which authority then has sufficient access to the router and/or firewall to configure it to achieve any desired access.

25 Preferably the router and/or firewall initiates a connection with the remote configuration authority.

Preferably the router and/or firewall is entirely solid state.

Preferably the router and/or firewall initially has no software other than that required to initiate a connection to the configuration authority and receive information from that authority.

5 Preferably the initial connection maintains a high level of security, typically using public key cryptography.

Preferably the router, firewall and at least one modem are integral.

Preferably the remote configuration authority is able to request packet monitoring data from the router and/or firewall.

10 Preferably the equipment is adapted to various internet connection methods, such as ADSL or cable.

The invention includes the method of configuring the equipment to allow only initiation of a call to only a desired authority and to then allow update only by the authority.

15 The invention may also broadly be said to consist in the parts, elements and features referred to or indicated in the specification of the application, individually or collectively, and any or all combinations of any two or more of the parts, elements or features, and where specific integers are mentioned herein which have known equivalents, such equivalents are incorporated herein as if they were individually set forth.

One preferred form of the invention will now be described with reference to the accompanying drawings in which,

20 FIGURE 1 shows a block diagram of the equipment.

FIGURE 2 shows a flow diagram of the initial mediation procedure which downloads to the equipment.

25 With reference to Figure 1, the diagram shows an ADSL connection via a modem 10 to a firewall 20 and router 30 which distributes the data to devices such as PC's 40. The modem acts to convert packets from the firewall into a form suitable for carrying information over

the internet. The firewall 20 acts to restrict what information packets may be transferred into the users system and the router 30 acts to distribute packets to an internal user in accordance with the packet address.

5 **Figure 2** shows how the equipment on powering on searches for an internet connection, and on detecting one sends a particular data stream to the remote configuration authority which detects the identity of the calling equipment, and hence the customers identity, the equipments current state, and its desired state as required by the customer. The remote authority then implements a procedure to securely update the equipment with the desired configuration changes and with the software required to carry out the desired functions.

10 In accordance with the present invention the modem, firewall and router are provided as a single equipment item. This item is installed on the users premises, provided with a connection to the internet and powered up. On detecting the internet connection the equipment identifies itself to the remote configuration authority, the only action it is capable of taking. The remote authority may then, in secure mode, download to the equipment such 15 configuration details and software as will allow it to perform the desired router/firewall functions.

20 Preferably the equipment configuration template is held by the remote authority, who may either make changes in it or allow the user to make changes in it via secure internet access. Such changes may be downloaded to the equipment in the same manner as the initial configuration data.

The firewall and router may maintain the normal statistics of packets passed, addresses sent to or received from, intrusion attempts etc. and may, either on prompting or on schedule, send these details to the configuration authority for storage and possible analysis.

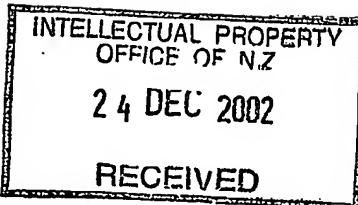
25 Thus it can be seen that at least the preferred form of the invention provides an item of equipment which can be remotely configured for router and/or firewall set up purposes.

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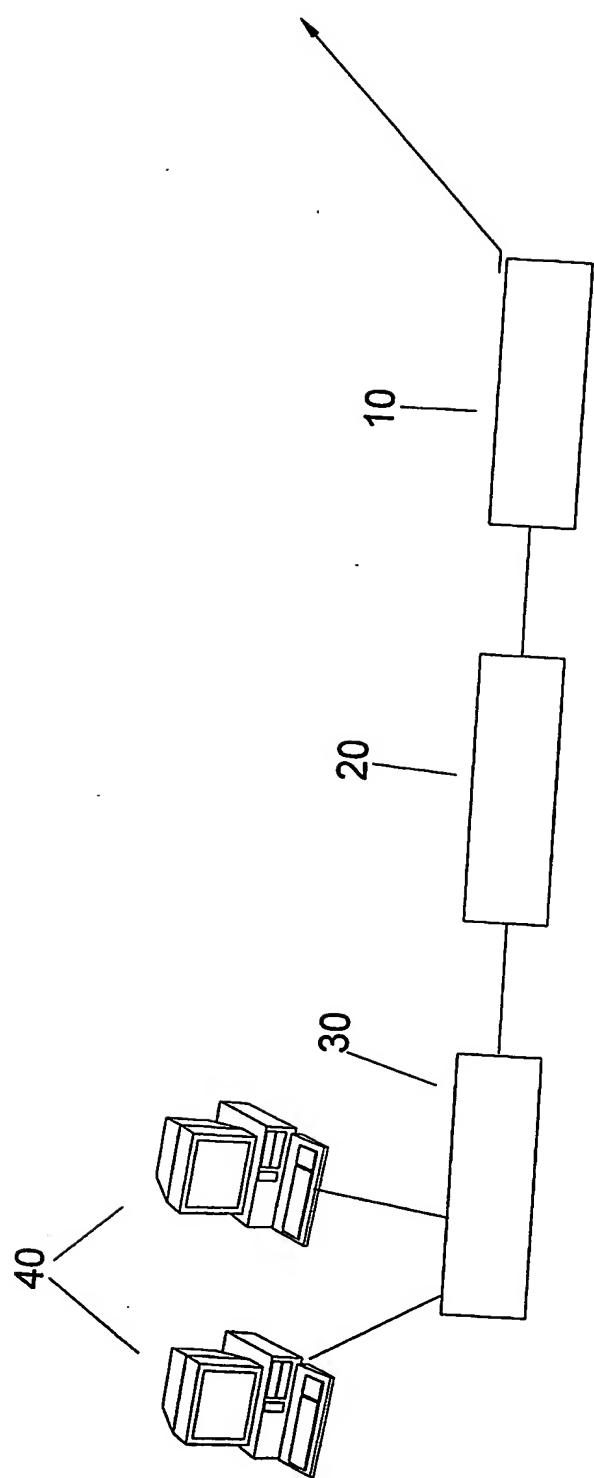


Fig 1

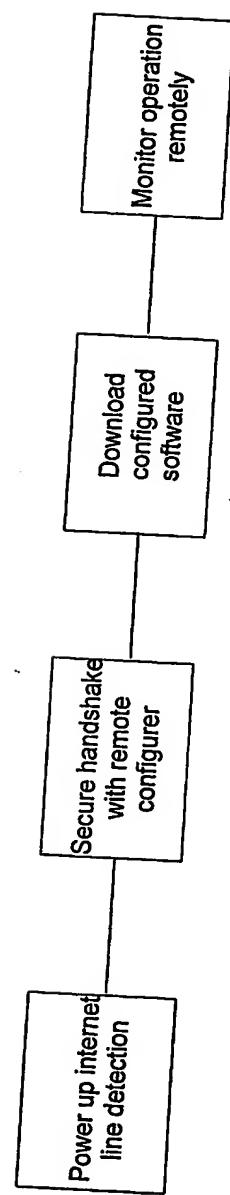


Fig 2